

We claim:

1. A process for the continuous preparation of THF by reaction  
5 of a 1,4-butanediol-containing reaction mixture over a heteropolyacid catalyst which has not been predried, wherein the reaction mixture comprises 2-(4-hydroxybutoxy)tetrahydrofuran.
- 10 2. A process as claimed in claim 1, wherein the reaction mixture comprises polytetrahydrofuran and/or its monoacetates or diacetates.
- 15 3. A process as claimed in claim 1 or 2, wherein the reaction mixture contains less than 1 ppm of basic nitrogen component.
4. A process as claimed in any of claims 1 to 3, wherein less than 1% by weight of heteropolyacid, based on the reaction mixture, is added.
- 20 5. A process as claimed in any of claims 1 to 4, wherein the reaction is carried out at from 80 to 300°C.
- 25 6. A process as claimed in any of claims 1 to 5, wherein the reaction is carried out in a pressure range from 0.5 to 10 bar.
7. The use of the THF prepared as claimed in any of claims 1 to 6 for preparing polyTHF, its monoesters and/or diesters by  
30 cationic polymerization over acid catalysts.
8. The use as claimed in claim 7, wherein the THF is hydrogenated before being used in the cationic polymerization.
- 35 9. A process as claimed in any of claims 1 to 8, wherein the reaction mixture is passed over a cation exchanger after the activity decreases.

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